8. Edmonds

Underwater Park

Date of Establishment: 1970

Establishing Agency/Organization(s): City of Edmonds and the Brackett's Landing Task

Force (now the Brackett's Landing Foundation)

Managing Agency/Organization(s): City of Edmonds

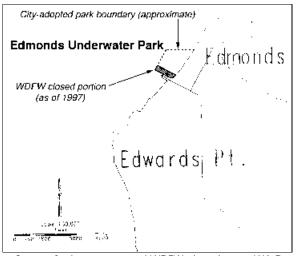
County: Snohomish

Location/Vicinity: Edmonds Underwater Park is located in central Puget Sound at the City of Edmonds, just north of the ferry landing (see **Maps 10 and 11**).

Marine Boundary Description/Discussion: The Underwater Park lies east of the inner harbor line, west of the western most boundary of the railroad right of way, north of the ferry dock on Main Street and south of a line extending due west from the end of Caspers Street (City of Edmonds Ordinance 5.32.005). Under state fisheries law (WAC 220-56-130), the current boundary description of the "Edmonds Underwater Marine Park" describes a length of only 250 shoreline feet. However, a 1997 WDFW proposal (not yet approved as of December 1997) would change this description to encompass 1800 feet (WDFW, unpublished 1997).

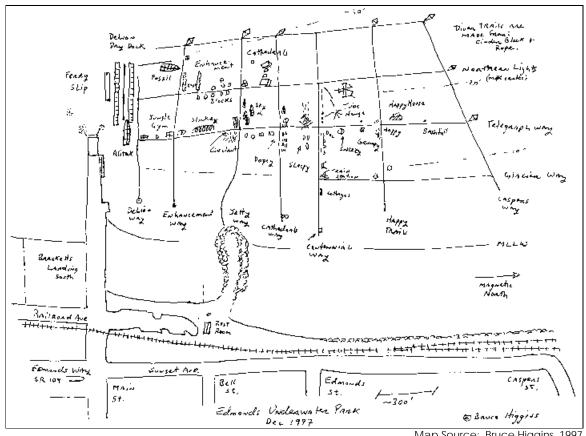
Adjacent or Overlapping Marine Protected Areas: None of the MPAs identified in this study abut or overlap with this site. However, it is interesting to note that Edmonds has three primary waterfront parks, Brackett's Landing (adjacent to Edmonds Underwater Park), Olympic Beach, and Marina Beach (leased from UNOCAL) (Higgins, personal communication 1997); and all city beaches are regarded as designated "marine sanctuaries" (City of Edmonds n.d.; Ohlde, personal communication 1997).

Map 10. Location of Edmonds Underwater Park



Source for base map and WDFW closed area: WA Dept. of Fish & Wildlife (Draft), 1997.

Map 11. Underwater Trail Map for Edmonds Underwater Park.



Map Source: Bruce Higgins, 1997

Current Size and Components

	SUBTIDAL		INTERTIDAL		UPLAND		TOTAL	Shoreline
	included	acres	included	acres	included	acres	ACRES	Length
	(yes/no)	(if known)	(yes/no)	(if known)	(yes/no)	(if known)		(if known)
Γ	yes	16.8	yes	8.2	yes	2	27	1626 ft.

The above intertidal acreage estimates are based on calculations made by the Washington Department of Fish and Wildlife (WDFW) (Butler, personal communication 1997). Acreage breakdowns for the site differ slightly as listed in the newest Edmonds Parks and Recreation Open Space Plan. This plan lists the Underwater Park portion as 22.5 acres, and the Brackett's Landing Park portion as 4.5 acres (City of Edmonds 1993). The estimate for the shoreline length was provided by the City (Ohlde, personal communication 1997).

Goals/Purpose/Objectives: Providing a high quality and safe recreational site for scuba diving is a primary objective for this park site (Higgins, personal communication 1996). As a marine protected area, the site is reserved to provide the public, scientists and students the opportunity to examine the ecological relationships in the area over time (City of Edmonds Ordinance 5.32.005).

Primary Legal Authority

State law: No take of foodfish or shellfish in the portion highlighted in **Map 10** as of 1997 (WAC 220-56-130)

State law: Commercial closure of sea cucumber harvest in the portion highlighted in **Map 10** WAC 220-52-07100A(2)(e)

City ordinance: No take of any marine life (City of Edmonds Ordinance 5.32.070)

City ordinance: No boats or watercraft of any kind in the underwater park or within 200 feet of its boundaries, with exceptions (with written permission) for divers and class instructors (City of Edmonds Ordinance 5.32.060)

Natural and/or Cultural Resource Values/Highlights

The Underwater Park provides scuba divers with a variety of underwater trails and artificial features, which attract marine life and provide habitat. The site is rich with marine life due to suitable constructed habitats and prohibitions on removal of marine life. The first manmade feature, a 300-foot dry dock, was placed in the water in 1935, 35 years before the Underwater Park was designated. Since 1972, additional named features, trails and buoys have been added to the Park, and are regularly maintained through volunteer efforts (note that the configuration of the trails and features in **Map 11** are subject to change as the Park is under continuous maintenance—the on-site map is the best source for the current configuration). The city founder's (George Brackett's) shingle mill was formerly at this site, and some remains of the mill are found in the Underwater Park (Higgins 1995). Adjacent Brackett's Landing Park contains recreational support facilities (Edmonds Parks and Recreation n.d.) and an interpretive kiosk and signs. The sandy beach area is a popular public gathering place for the approximately 40,000 visitors per year who visit the Underwater Park (Ohlde, personal communication 1997).

Research by Palsson and Pacunski (1995) compared rockfish and lingcod populations at Edmonds Underwater Park with four other Puget Sound fished sites and one other marine protected area (at Shady Cove in the Friday Harbor-to-Point Caution San Juan Island Marine Preserve). Suggestive of the effectiveness of the site's long term (25 year) no-take status, fish density, size and reproductive output were dramatically larger at Edmonds by comparison to fished sites (Palsson and Pacunski 1995).

Following is a partial and informal list of observed marine life at the site (Edmonds Parks and Recreation n.d.; Weber n.d.; Higgins 1995; Lider, personal communication 1997; Higgins, personal communication 1997):

NA - --!-- -

Diametica	lassantah natah	Fiab	Marine	Divelo
Plantlife	Invertebrates	Fish	Mammals	Birds
Iridescent red algae	Jellyfish (Many types;	Pacific herring	California	Bald eagle
Turkish towel	vary by season)	Tubesnout	sea lion	Western
Bull kelp	Sea cucumber	C-O sole	Harbor seal	grebe
Laminaria	Sunstar	Starry flounder		Sand piper
Eel grass	Blood star	English sole		Mallard
	Sunflower star	Black rockfish		Merganser
	Pincushion star	Copper rockfish		Great blue
	Yellow sponge	Cabezon		heron
	Gray sponge	Penpoint gunnel		Belted
	Hermit crab	Crescent gunnel		kingfisher
	Dungeness crab	Decorated warbonnet		Double-
	Kelp crab	Gunnel		crested
	Moon snail	Lingcod		cormorant
	Limit	Big skate		Brant
	Chiton	Ratfish		Gull
	Barnacle	Blackeyed goby		Tern
	Scallop	Sailfin sculpin		
	Horse clam	Red Irish lord		
	Mussel	Sculpin		
	Geoduck	Pile perch		
	White plumose anemone	Shiner perch		
	Octopus	Greenlings		
	Squid			
	Tunicate			
	Nudibranch			
	Feather duster worm			
	Tube worm			
	Sea pen (rare)			

Restrictions on Human Activities to Protect Marine Resources

State regulations prohibit the take of foodfish or shellfish from the portion of the Underwater Park highlighted in **Map 10** (WDFW WAC 220-56-130; WAC 220-20-025). Additionally, the City of Edmonds has ordinances in place to protect the all of the Underwater Park's marine life. "...[T]aking or possession of any fish, bivalve, mollusk, crustacean or any other type of marine organism, whether plant or animal, of any kind or description" is prohibited (City of Edmonds Ordinance 5.32.070) (see **Figures 10** and **11**). Dogs are not allowed on City Beaches (Higgins, personal communication 1997). It is unlawful to knowingly injure, destroy or degrade marine life habitat (City of Edmonds Ordinance 5.32.110). Possession of devices for taking fish, shellfish, other marine animal life, and marine plants, as well as nets for collecting already taken marine life are prohibited in the Underwater Park (City of Edmonds Ordinance 5.32.070) and are prohibited at the city park and beach area between the ferry dock and the bathhouse on Sunset Beach.

No motorized or unmotorized boats are allowed inside the park with exceptions (with written permission) for divers and class instructors (City of Edmonds Ordinance 5.32.060). Night diving is not allowed without a permit (Edmonds Parks and Recreation n.d.). There are also additional regulations regarding safe scuba diving (City of Edmonds Ordinance 5.32.070).

City Ordinances relating to activities in underwater parks may be exempted when written permission is given for research purposes by authorized officials; for emergency purposes, for Department of Parks and Recreation supervised activities; or when a permit is issued to allow maintenance by scuba divers (City of Edmonds Ordinance 5.32.100).

Figure 10. Shore-posted Sign at Edmonds Underwater Park.



Photo: Murray, 1997

Figure 11. Shore-posted sign at Edmonds Underwater Park



MANAGEMENT OF THE SITE

Planning

The Underwater Park was established in 1970 when the City of Edmonds enacted harvest restrictions for the Edmonds Underwater Park as part of its coastal zone management planning. Adjacent Brackett's Landing Park was established prior to 1970. The City leased the subtidal lands included in the Underwater Park's boundaries from DNR for recreational diving and conservation purposes (Higgins 1995). The City's harvest restrictions prohibited the take of any kind of marine life to protect the area. Many years later, harvest closures for the site were adopted by WDFW. The Underwater Park has been noted as the longest established "no-take" marine protected area in the Pacific Northwest (Lamb 1996).

The City of Edmonds has a comprehensive parks plan, which is updated every five years and is developed in accordance with resident surveys (Higgins, personal communication 1996). There is no management plan specific to the Edmonds Underwater Park, though there is a Master Plan for Brackett's Landing (Ohlde, personal communication 1997).

The current City of Edmonds Parks and Recreation Open Space Plan focuses on goals, planning, and activities for the City's upland parks; specific mention of planning for the Underwater Park is limited. The exceptions are that 1) the City recognizes that expansion is difficult due to the presence of the ferry dock to the south of the Underwater Park and the fact that most of the shoreline in the City is privately owned (though some expansion to the north has occurred); 2) the Underwater Park is maintained through volunteer labor; and 3) minor improvements needed (as of 1993) were buoy replacement and purchase of tidelands (City of Edmonds 1993).

The Park, Recreation and Open Space Plan discusses as a group all city waterfront parks, which includes but is not limited to Brackett's Landing. Plans that would contribute to visitor enjoyment of the Underwater Park are to expand the Beach Ranger Program and to build a larger and more permanent interpretive center on the waterfront (City of Edmonds 1993).

The site has benefited from public involvement in planning and implementation. The Brackett's Landing Task Force (now called the Brackett's Landing Foundation), was instrumental in establishing the site as a Shoreline Sanctuary, and along with Shoreline Community College's Marine Science Program, assisted the City in getting the Beach Ranger Program started (Lider, personal communication 1997). In 1977, the mayor of Edmonds formed a Scuba Safety Committee (Higgins, personal communication 1996). Scuba divers and other volunteers remain closely involved in many planning and implementation issues.

Supervision/Enforcement

The site's most constant source of supervision and maintenance is provided by a committed group of volunteers known informally as the Underwater Park Stewards. It is perhaps the support and near-constant presence of these scuba divers, and their interaction with and influence upon visiting divers and the public, that has helped provide this MPA with a high level (if not the highest) of supervision and an effective system of "peer-pressure" enforcement.

The volunteer Stewards work at the site on a weekly basis (*Underwater Park Stewards*, Issue 7, July, 1997), and frequently add or modify artificial features, provide routine maintenance, and remove marine debris (Higgins 1995). A four-tiered prioritized approach guiding volunteer activities at the site involves managing of the Underwater Park for: 1) safety, 2) security, 3) maintenance, and 4) enhancement/improvement (Higgins, personal communication 1996). The Stewards' objective is to try to balance the habitat needs of the animals with the needs of visiting scuba divers. The Stewards' work at the Underwater Park is supported in part by volunteers' personal contributions, fundraising events, and the City of Edmonds (Higgins, personal communication 1996).

Brackett's Landing Park, the means most divers use to access the Underwater Park, is open from 6:00 a.m. to 11:30 p.m. May through September and 6:00 a.m. to 10:00 p.m. October through April (Edmonds Parks and Recreation n.d.). Signage with charts, maps, and other information are on display to inform visitors about the Underwater Park's regulations and resources, and to assist divers with constructing dive plans (Edmonds Parks and Recreation n.d.; Lider, personal communication 1996; Higgins, personal communication 1996). Buoys are in place to mark the perimeter of the site and to exclude boat traffic (Higgins 1995).

City of Edmonds Police officers enforce shellfish regulations (City of Edmonds Ordinance 5.32.108), and Underwater Park regulations, while an Animal Control Officer enforces the "no dogs" rule (Higgins, personal communication 1997). The following penalties apply: any action which injures or threatens harm to marine organisms or degrades their habitat is a public nuisance subject to injunctive relief and civil damages (City of Edmonds Ordinance 5.32.130); and any person who violates ordinances related to the Underwater Park (City of Edmonds Title 5, Chapter 5.32) is guilty of a misdemeanor and is subject of a fine up to \$1,000 (City of Edmonds Ordinance 5.32.140). The City also fines divers for being in ferry lanes and obstructing ferry service (Higgins, personal communication 1997).

City Beach Rangers will talk with visitors who are violating the rules and, if necessary, call on the city police (Lider, personal communication 1996). According to staff involved with the City's Beach Ranger Program, the most significant and common enforcement problems at the Underwater Park originate not from boats or illegal fishing, but from beachcombers collecting marine life at low tide (Lider, personal communication 1996). According to scuba divers regularly on site for volunteer activities, boaters have sometimes been known to set crab traps in the Underwater Park (Higgins, personal communication 1996).

Additional Programs: Research, Monitoring, Education, Outreach, Public Involvement

The Beach Ranger Program has three to five staff Rangers and an additional corps of volunteers that patrol the beach in the spring and summer months, interpreting marine ecology and the importance of protecting the marine environment, and explaining park regulations for visitors. Regularly scheduled beach walks and other educational events are free to individuals; a fee is charged for beach walks and classroom presentations for school groups (Lider 1997). Rangers are present on a part time basis during spring and summer, normally during the low tides schedule and on weekends (Higgins, personal communication 1997).

Additional public education is provided though City-produced brochures and from interpretive signage at the site (**Figure 12**). Additionally, the Underwater Park Stewards publish a monthly status report and a newsletter of volunteer activities. The Steward's also coordinate park benefit events, and represent the Park in meetings with other agencies interested in establishing new underwater parks (*Underwater Park Stewards*, Issue 4, April, 1997).

Approved research conducted at the Edmonds Underwater Park has tended to focus on its status as a harvest refuge and the abundance of the living organisms within it. An example of this is the previously-mentioned study by Palsson and Pacunski (1995). Another long term survey focuses on Lingcod nest abundance (*Underwater Park Stewards*, Issue 7, July, 1997).

Puget Sound Ecosystem Puget Sound is home to a wide variety of marine life. Water temperature is usually 55°-59°. The warm coastal currents mix with the cold water creating a uniform temperature that makes an ideal living environment. Water quality, including the degree of pollutants, salt, and oxygen, affect the survival of plants and animals. The underwater terrain provides protective barriers for fish and other organisms. Some species thrive in sandy beach areas while others prefer a rocky habitat.

Figure 12. Interpretive Display at Edmonds Underwater Park

Photo: Murray, 1997

For More Information:

City of Edmonds Community Services Department Parks & Recreation Division 700 Main Street Edmonds, WA 98020 Telephone: 206-771-0230 Edmonds Underwater Park Stewards c/o Bruce Higgins 20138 44th Ave NE Seattle, WA 98155-1620

Sund Rock 9.

Marine Preserve

Date of Establishment: 1994

Establishing Agency/Organization(s): Washington Department of Fish and Wildlife (WDFW)

Managing Agency/Organization(s): Washington Department of Fish and Wildlife (WDFW)

County: Mason

Location/Vicinity: Hood Canal, just north of Hoodsport.

Marine Boundary Description/Discussion: Encompasses waters within 200 yards of the salmon net pens located near Sund Rock (see Map 12). A portion of the Preserve boundary abuts the shore at private property.

Adjacent or Overlapping Marine Protected Areas: None.

Current Size and Components

SUB	SUBTIDAL		INTERTIDAL		UPLAND		Shoreline
included	acres	included	acres	included	acres	ACRES	Length
(yes/no)	(if known)	(yes/no)	(if known)	(yes/no)	(if known)		(if known)
yes	unknown	yes	unknown	no	unknown		unknown

Adjacent uplands and the small portion of intertidal area encompassed within the Preserve are privately owned (Butler, personal communication 1997).

Goals/Purpose/Objectives:

Although not formally stated or documented, the primary purpose for establishment of the Sund Rock Marine Preserve is to provide conditions supportive of a non-consumptive recreational scuba diving area (Mills, personal communication 1997a).

Primary Legal Authority

WDFW personal use shellfish closure [WAC 220-56-307(2)]

WDFW personal use food fish closure [WAC 220-56-128(14)]

WDFW Commercial closure of sea cucumber harvest [WAC 220-52-07100A(2)(d)]

Marine Protected Areas in Puget Sound Volume 2: MPA Site Profiles and Appendices

Lilliwaup Dewallo
Sund Rock
Heedsport

Map 12. Location of Sund Rock Marine Preserve

Map Source: Washington Department of Fish and Wildlife, draft, 1997

Natural and/or Cultural Resource Values/Highlights

The site features a bedrock wall with a series of ledges, and boulder fields extending down to about 90 feet. During scuba surveys by WDFW in 1995 and 1996, large schools of juvenile quillback rockfish were sighted, as well as some adult copper and quillback rockfish (Pacunski, personal communication 1997). Rockfish habitat of "good" quality has been described as limited and of patchy distribution (Pacunski, personal communication 1997).

The Preserve is a popular shore-accessible scuba diving site. The site's good visibility, interesting rock walls and diversity of invertebrates and fish, including wolfeels and many crabs, are highlights for visiting scuba divers (Mueller and Mueller 1990; Lundquist and Parker 1996).

Restrictions on Human Activities to Protect Marine Resources

WDFW regulations provide the following restrictions:

- It is unlawful to fish for or possess shellfish taken for personal use from... waters within 200 yards of the salmon net pens located near Sund Rock in Hood Canal, except that it is lawful to take shrimp during the Hood Canal shrimp season provided for in WAC 220-56-325 [WAC 220-56-307(2)].
- Waters within 200 yards of the salmon net pens located near Sund Rock in Hood Canal are closed to the taking of food fish other than salmon at all times [WAC 220-56-128(14)].
- The following waters are closed to the harvest of sea cucumbers at all times:... (d) Sund Rock Marine Preserve Waters within 100 yards of the salmon net pens near Sund Rock in Hood Canal [WAC 220-52-07100A(2)(d)].

MANAGEMENT OF THE SITE

Planning

In the early 1980s, Sund Rock was considered by the Washington Natural Heritage Council for designation as a Natural Area Preserve (NAP). NAPs protect high quality native ecosystems and rare plant and animal species, and use is generally limited to scientific and educational purposes. However, the site did not meet NAP standards, and there were concerns about site manageability as well (Heiser, personal communication 1997; Mills, personal communication 1997a).

Although not designated as a NAP, community interest in restricting harvest activities at the site remained. Eventually, a proposal was brought to WDFW (then WDF) requesting closure of the area around Sund Rock to create a no-harvest area for recreational diving. There was support for the proposal from local scuba dive groups and property owners near the site. During public review of the proposal, some concerns were expressed over loss of the area to shrimp fishing. In 1994, WDFW adopted recreational food fish and shellfish harvest closures for the site without curtailing shrimp and salmon harvest. The harvest closure exceptions were not considered to be a major interference with the intent of the proposed closure (Mills, personal communication 1997a).

Supervision/Enforcement

There is no supervision or enforcement program developed specifically for the Preserve. A boat-based WDFW enforcement officer normally patrols the area and the site approximately 2 or 3 times a year, or possibly more often if an incident at or near the site calls for patrol presence (Latimer, personal communication 1997).

WDFW staff are periodically at the site to work on the salmon net-pens. While they have neither authority nor the responsibility to look out for the MPA, they are co-located (Mills, personal communication 1997a).

Residents also keep an eye on the Preserve. There have been public access problems at the site, with some trespassing on private property (Fischnaller 1993).

Additional Programs: Research, Monitoring, Education, Outreach, Public Involvement

In 1995 and 1996, WDFW conducted SCUBA and video surveys at Sund Rock to assess fish populations and habitat. The work is part of WDFW's ongoing surveys at several Puget Sound locations, including harvest refugia MPAs and fished sites, which has led to greater understanding of the effectiveness of such protected areas (see Palsson and Pacunski 1995). Plans call for a resurvey of the site, but a schedule is not set (Pacunski, personal communication 1997).

Two shore-posted signs were installed at the site in 1995. One sign welcomes divers to the site, while another provides interpretive information about the subtidal zone. The signs were created and installed through the "Educational Signs to Identify Underwater Parks and Marine Life" project. This project, coordinated by the Washington Scuba Alliance, is responsible for installation of a variety of interpretive signs at 30 areas throughout Puget Sound, including state parks, county parks, popular scuba diving sites, and other areas (Larson, personal communication 1997). Assistance with sign installation at the Sund Rock Marine Preserve was provided by the Hood Canal Aquanuts, a local scuba diving group.

The Sund Rock Marine Preserve is identified in the annual sport fishing rules pamphlet produced by WDFW. A location map is provided, and the specific recreational harvest restrictions are described.

For More Information:

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